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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,257	12/29/2000	Keen W. Chan	42390P10447	8790
8791	7590	08/14/2006	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			HENEGHAN, MATTHEW E	
			ART UNIT	PAPER NUMBER
			2134	

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/753,257	Applicant(s) CHAN ET AL.	
	Examiner Matthew Heneghan	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 24, 26-31, 33-44 and 46-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 and 26-28 is/are allowed.
- 6) ☒ Claim(s) 29-31, 33-44 and 46-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9 May 2006 has been entered.

2. In response to the previous office action, Applicant has amended claims 24, 29, 30, and 43. Claims 24, 26-31, 33-44, and 46-54 have been examined.

### ***Claim Objections***

3. Claim 30 is objected to because of the following informalities: The second limitation recites "generating a hash from a one random salt value and input data...". It is being presumed that "a one" should read as "one." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 29 and 43-54 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 29 recites that a salt value is user-specific; in the original disclosure, the salt is application-specific, with its creation being triggered by a user (see Specification, p. 5, lines 24-25).

Claim 43 recites the step "generate a hash from the plurality of random salt values and input data, each salt value only associated with one specific software application, the input data including a user identification and a strong password." No support can be found in the original disclosure for the generation of a hash that is derived from more than one of the salt values. In view of Applicant's specification, it is being presumed that the hash is derived from one of the salt values in addition to the input data.

Claims 44-54 depend from rejected claim 43, and include all the limitations of that claim, thereby rendering those dependent claims as failing to comply with the written description requirement.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 30, 33-38, 40, 43, 46-50, and 52 are rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,141,760 to Abadi et al. in view of U.S. Patent No. 6,826,686 to Peyravian et al. further in view of Schneier, "Applied Cryptography," 1996, pp. 165-166 and 429-431.

Regarding claims 30, 33, 34, 36, 37, 40, 43, 46-49, 50, and 52, Abadi discloses a method for constructing a password specific to a service (an application) by hashing the name of the service (input data) from the user (see column 3, lines 4-5), a master password (the strong password) and the user name (see abstract). The password is then submitted to the application (see column 3, lines 60-62). The system is designed to construct passwords for all services which a user uses, including client software applications (see column 2, lines 41-56).

Abadi does not explicitly describe the use of a random salt in password creation.

Peyravian discloses the integration of a client-specific and a server-specific random number hashed with a user\_id and master user password (see column 4, lines 32-57), and suggests that this allows for password agreement without the need for a

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key pair or agreed-upon key while preventing replay attacks (see column 2, line 66 to column 3, line 10).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Abadi by integrating a client-specific and a server-specific random number hashed with a user\_id and master user password, as disclosed by Peyravian, as this allows for password agreement without the need for a key pair or agreed-upon key while preventing replay attacks.

Given that Abadi maintains separate entries for the parts of the password for each application, save for the global master password (see Abadi, figure 2) and that Peyravian discloses a random number to be hashed that is client/server specific, it is reasonable that one skilled in the art, when incorporating Peyravian into Abadi, would maintain a list of application-specific salts that would be populated by a plurality of application-specific salts after a plurality of applications have been invoked (as is done in Applicant's specification).

Abadi also does not disclose passwords that are only valid for a specified time period.

Peyravian further discloses the use of time-out mechanisms to maintain the secrecy of passwords (see column 4, lines 21-24).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the invention of Abadi by incorporating a time-out mechanism, as disclosed by Peyravian, to maintain the secrecy of passwords.

Using Abadi in view of Peyravian, a user would only need to remember the master password.

Abadi and Peyravian only disclose the computing of the hash a single time.

Schneier discloses an algorithm for iteratively hashing a value any number of times (see "Length of One-Way Hash Functions," pp.430-431), and notes that additional hashing increases resistance to birthday attacks (see pp. 429-430; a description of birthday attacks is found on pp. 165-166).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Abadi and Peyravian by hashing a value multiple times, as disclosed by Schneier, to increase resistance to birthday attacks.

As per claim 35, a single master password is used to create multiple application passwords.

Regarding claims 34, 47, and 48, Abadi does not disclose a mechanism for changing passwords if it is determined that a change is necessary.

Peyravian discloses a mechanism for changing passwords if the master password is changed (due to a time-out, for example), because the password may have been discovered by someone else (see whole document, especially column 4, lines 21-31).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Abadi by supplying a mechanism to change passwords if the master password needs changing, as disclosed by Peyravian, because the password may have been discovered by someone else.

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As per claim 38, a networked system is used (see Abadi, column 2, lines 21-23).

6. Claims 31 and 44 are rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,141,760 to Abadi et al. in view of U.S. Patent No. 6,826,686 to Peyravian et al. in view of Schneier, "Applied Cryptography," 1996, pp. 165-166 and 429-431 as applied to claims 30 and 43 above and further in view of U.S. Patent No. 6,006,333 to Nielsen.

Over and above what is described and Abadi, Peyravian, and Schneier above, Abadi discloses the generation of user names for storage in a set of user names (203), which is then retrieved to generate the password (see column 3, lines 22-45).

Abadi, Peyravian, and Schneier do not specifically disclose a test to see if the user name already exists.

Nielsen discloses a system for maintain passwords for different applications wherein there is a check to see if a password exists, and an entry may be created if none exists. This is done to allow the user to register at the new site (see column 5, lines 40-61).

Therefore it would be obvious to one of ordinary skill in the art to modify the invention of Abadi, Peyravian, and Schneier by checking to see if a password exists, and an create an entry if none exists, as disclosed by Nielsen, in order to allow the user to register at the new site.



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7. Claims 39 and 51 are rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,141,760 to Abadi et al. in view of U.S. Patent No. 6,826,686 to Peyravian et al. in view of Schneier, "Applied Cryptography," 1996, pp. 165-166 and 429-431 as applied to claims 30 and 43 above and further in view of U.S. Patent No. 6,064,736 to Davis et al.

Abadi, Peyravian, and Schneier do not disclose the algorithm to be used in the construction of the hash.

Davis discloses the use of the MD5 algorithm for constructing a password hash, and suggests that this allows a server to transport information safely to a client (see column 3, lines 56-65).

Therefore it would be obvious to one of ordinary skill in the art to modify the invention of Abadi, Peyravian, and Schneier by using the MD5 algorithm for constructing the password hash, as disclosed by Davis, as this allows a server to transport information safely to a client.

8. Claims 41, 42, 53, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,141,760 to Abadi et al. in view of U.S. Patent No. 6,826,686 to Peyravian et al. in view of Schneier, "Applied Cryptography," 1996, pp. 165-166 and 429-431 as applied to claims 30 and 43 above, and further in view of U.S. Patent No. 6,601,175 to Arnold et al.

Abadi in view of Peyravian does not provide for a password that is only valid for a limited time period based on platform activity.

Arnold discloses the derivation of limited-time passwords for local computer use or remote administration, which can be created on an as-needed basis (based on platform activity), and further suggests that this is done to prevent a user from re-configuring a computer after learning the administrative password (see column 5, lines 10-44).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention disclosed by Abadi, Peyravian, and Schneier by supporting limited-time passwords, as disclosed by Arnold, to prevent a user from re-configuring a computer after learning the administrative password.

***Allowable Subject Matter***

9. Claims 24 and 26-28 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

Claim 24 as amended recites that salt values are to be generated for each of the applications in a list having a plurality of names of applications. The previously cited art maintains lists of applications (also see U.S. Patent No. 6,006,333 to Nielsen) and relevant password data, but all of the password information is created on an ad hoc basis as the applications are accessed, rather than together in a single step.

Claims 26-28 are allowable based upon their dependence upon claim 24.

***Response to Arguments***

11. Applicant's arguments, see Remarks, filed 19 December 2005, with respect to the rejections of the claims under 35 U.S.C. 103 have been fully considered and are persuasive in view of Applicant's amendments. Therefore, the rejection has been withdrawn. However, upon further consideration, new grounds of rejection are made in view of the previously cited art in view of Schneier.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (571) 272-3834. The examiner can normally be reached on Monday-Friday from 8:30 AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques, can be reached at (571) 272-6962.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Or faxed to:**

(571) 273-3800


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEH

August 8, 2006

  
Matthew Heneghan, USPTO Art Unit 2134